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SABRA KIMBALL

Virginia Wildlife

Dedicated to the Conservation of Virginia's Wildlife and Related Natural Resources and to the Betterment of Outdoor Recreation in Virginia

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EDITORIAL

Is It Any Wonder?

MEMBERS of Congress got to talking about gun control legislation one day not long ago. It was eloquent and enlightening oratory, of course, but we wondered how many people, including members of Congress themselves, really heard what was said.

For a long time some Senators and Representatives have been verbally flaying the hide off sportsmen's groups, vilifying and branding as "the gun lobby" or as "gun runners" all who voiced objections to strict federal gun control. They have labeled as vicious misrepresentation any hint that the real purpose behind gun control might well be gun abolition—the disarming of the law-abiding citizenry. Well, let's see about that.

On the particular day to which we now refer, one Senator entered in the *Congressional Record*, for the edification of fellow Senators, an article which, he said, was an accurate reflection of the opposition felt by many people of his state to gun control legislation. The article stated that one of the nation's best known legislators had admitted (presumably when the issue was the ban on mail order gun sales) that what he and all the big anti-firearms advocates really wanted was complete registration of all guns, and the writer of the article went on to voice the fear that registration of firearms might be just a first step in eventually taking his guns away from him.

Another Senator arose to say that over the previous weekend a national sportsmen's group had been telling its membership that their right to bear arms was endangered as never before, and he said he was appalled by what he described as "this type of scare tactic." The charge, he said, had no relevance to proposed legislation. Well, maybe not.

But on the very same day, over in the other wing of the Capitol, in the House of Representatives, a member arose to speak in behalf of gun-control legislation "that would prohibit the mail-order sale of every kind of firearms absolutely, and that further would require the registration of all existing firearms plus any purchased in the future; . . ." And he concluded his remarks in these words:

"Mr. Speaker, let us pass such legislation and in the meantime dream of the time in the future when men will look back and wonder *why anyone would have ever wanted or needed a gun in the first place.*"

Is it really any wonder, then, that sportsmen and other law-abiding citizens, who have a perfectly legitimate right to buy, keep and use guns, fear that at least in the minds of some lawmakers compulsory registration of firearms is a step in the direction of getting rid of all guns except those in the hands of the military and the police?

This was not just some frightened and misguided little old lady but a real, live congressman speaking, an anti-gun bloc congressman who already had dreams of the day when, unarmed, we will look back and wonder why we ever wanted guns in the first place! He sounds awfully sure that he not only knows what is best for us but also what we really want, and what we really don't want.

When the apparent issue was a ban on mail order sales, anti-gun advocates were already thinking registration. Before the ban on mail order sales of pistols even became law, they set out to extend the ban to rifles and shotguns, and to require the registration of all firearms and the licensing of all gun owners. But their dreams were already of the future, when men will look back and wonder . . . well, he said it, didn't he? Look it up in the *Congressional Record*, June 19, 1968, page H5098.—J. F. Mc.

LETTERS

Quills Don't "Sail"

The article in the June *Virginia Wildlife* titled "Survival, Incredible and Audacious" really got mixed up in trying to explain how a porcupine's quills are dispatched. The quills are detached from the animal by physical contact. I have chased hundreds of porcupines from Montana to the State of Maine and none of them threw any quills. Foresters don't like porcupines because of the trees they destroy and the way they ruin any building they get in.

J. N. Van Alstine
Center Conway, New Hampshire

Forester Van Alstine is quite correct. The expression "sail into the skin of the enemy" was not the best choice of words to describe the action of a porcupine's quills since they certainly do not "sail" in free flight through the air.—Ed.

AS a reader who enjoys your fine *Virginia Wildlife*, I would like to say "thank you."

And, if possible, let me add a request for more cartoons in future issues. As you realize, they take up relatively little room in a publication, and are usually appreciated by almost all readers. Perhaps even my own cartoon (enclosed) might be of use.

Charles F. Leck
Ithaca, New York

Is the music too loud, dear?

I thought you might like to publish this picture of an unusual rack. Instead of the front tines coming out and *around* in the usual manner, they come out and turn *up* to match the points behind.

Charles Foster
Flint Hill

Arcadia

WILDLIFE MANAGEMENT UNIT

By ALAN GUTHRIE
Game Biologist, District VI

NESTLED snugly in the Blue Ridge Mountains in Botetourt County lies Arcadia, a small community from which the Arcadia Wildlife Management Unit, on the Glenwood Ranger District of the Jefferson National Forest, got its name. The community no doubt was named for Arcadia, Greece, a mountainous district celebrated as the abode of a simple, contented, pastoral people—a scene of simple pleasure and quiet. The description fits our own Arcadia and the surrounding area. The picturesque country —tall rising mountains, deep valleys with bold, tumbling streams, the lazy James River, vast areas of mature timber stands, beautiful sunrises and sunsets, tall peaks shrouded with the haze of early morning fog—all this and much more is the area of which we speak.

The Glenwood Ranger District of the Jefferson National Forest is one of the three Forest Ranger Districts within the Commission of Game and Inland Fisheries' District VI Game Biologist's working area. It is comprised of over 70,000 acres of land, throughout which wildlife management activities are conducted to provide an abundance of wild game and fish for the enjoyment of sportsmen and other outdoor recreation minded people. The Commission of Game and Inland Fisheries has a long standing cooperative agreement with the Forest Service, which provides that Forest Service land and streams will be available for public hunting and fishing, and that the Game Commission will assist in planning and carrying out wildlife management activities closely coordinated with the other resource management plans and practices of the National Forests. Under this agreement a game manager is located on the Glenwood Ranger District to execute a wide variety of development projects on the Arcadia Wildlife Management Unit.

Throughout the years various such projects have been cooperatively planned by Forest Service and Game Commission personnel and carried out by the game manager, and their benefits to the wildlife and the people who use the area are apparent. These projects have included bulldozing clearings in remote areas and seeding them with desirable foods for deer, turkeys, grouse and other species; seeding abandoned logging roads and trails; planting chestnut and apple trees and food producing shrubs; installing stream structures to create deep pools in the excellent trout waters; providing access trails for hunters and sightseers; erecting nesting boxes for wood ducks where suitable nesting sites did not exist; creating water holes where availability of surface water may be a limiting factor on wildlife populations; and so on, almost endlessly.

Years ago clearings were created deep in the forest by bulldozing. These were seeded with grasses to provide open areas for all species of game, and particularly for turkeys and their poults so they could feed on insects. The clearings have been kept open by mowing and with herbicides, and are periodically renovated. Today we seed them with clovers and small grains, and often put in a small wildlife food patch using a mixture of annual plants (millets, milo, rape, buckwheat, soybeans, lespedeza, cowpeas, etc.), which produce an abundance of food.

Today we find that seeding roads and trails is more economical and practicable than establishing more clearings. A minimum of work is required to open up such roads since most are abandoned logging roads. Also, they provide more edge effect and are available to a greater number of animals since they often extend for several miles. Clovers and small grain are planted for game food.

Several chestnut plantations have been made, and some have begun to produce nuts. Apple trees have been planted to provide a "delicacy meal" occasionally for wildlife. Small berry-producing shrubs have been planted to provide emergency feeding when weather conditions, such as deep snows, prohibit normal feeding.

A number of beautiful mountain streams on the Arcadia Unit provide excellent trout fishing. Some few have native trout, but most are stocked with hatchery-reared fish. In order to provide better fishing holes, stream structures known as gabions have been installed. These usually cause the water to form deep holes immediately below them and not only provide a better place for the fish to hide but also provide more exciting fishing.

Numerous access trails and roads have been opened up to assist hunters, hikers, and sightseers in getting into remote areas which they might otherwise be discouraged from entering and enjoying. Being situated along the Blue Ridge Parkway, the Glenwood District attracts many hikers and naturalists and these foot trails, therefore, are most helpful.

Recently the resident game manager erected a number of nest boxes for wood ducks along several of the streams and lakes on the district. It is expected that this project will eventually increase the wood duck population throughout the district by providing suitable nesting spots where natural nesting spots do not exist.

Many areas do not have sufficient available surface water for wildlife, even though the district is blessed with numerous streams. In such areas, desirable sites are selected where water can collect and a water hole (a small pond

Deep in the forest, clearings have been opened and maintained for the benefit of wildlife species, particularly turkeys whose poults require a large quantity of the insects such clearings produce.

Va. State Chamber of Commerce photo

Va. Conservation Dept. photo

Pleasant, pastoral scenery along the Blue Ridge Parkway, which runs the length of the Glenwood Ranger District in which lies the Arcadia Wildlife Management Area.

which will have a surfaee area of perhaps 1/10 acre or more) is constructed. In years of severe drought these have proved to be quite valuable habitat improvements as evidenced by their heavy utilization by a number of species.

The Natural Bridge Forest Camp for Boys, operated by the Virginia Department of Welfare and Institutions, is loeated at Natural Bridge. and these boys are generally available to assist the game manager. These youths have been involved in minor law infractions and the work serves as a training program and points out a road of clean, honest living for these young men. Excellent guidance by their immediate supervisors at the camp, Forest Service personnel, and the game manager is provided in order to give each young man a better perspective and better chance of not repeating past mistakes.

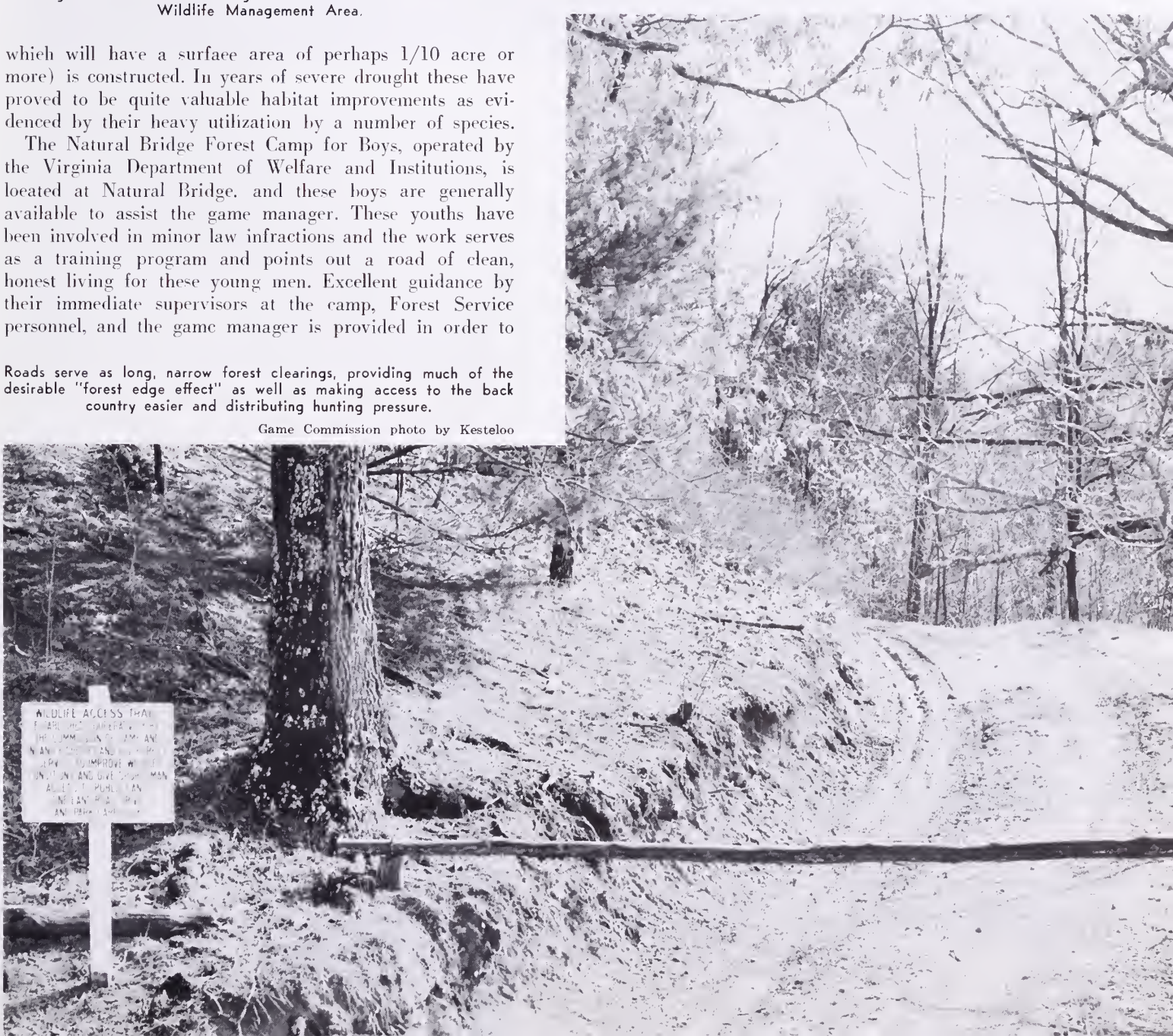
The activities so far described are not the only accomplishments in the area. The Forest Service has established several excellent camping areas with fine facilities. Private modern camping facilities are also available. The number of camping visitors to the area clearly indieates the popularity of the Glenwood Distriet. (Information regarding either the Forest Service or private facilities may be obtained by writing the District Ranger, U. S. Forest Service, Natural Bridge, Virginia.)

Good populations of deer, bear, turkeys, squirrels, grouse, quail, elk (elosed to hunting), and rabbits are found on the Glenwood Distriet. Good hunting is available, fishing is fine, and camping is "par excellence." The sights to be seen are unequaled, and few places can be found where hiking and nature study ean be more enjoyable, profitable, or educational.

Arcadia, a mountainous district where simple living is the key to happiness and where nature exists as the Maker intended—shucks, no one ean adequately describe it. You will just have to see it for yourself!

Roads serve as long, narrow forest clearings, providing much of the desirable "forest edge effect" as well as making access to the back country easier and distributing hunting pressure.

Game Commission photo by Kesteloo



Some Notes on Bird Watching on "The Shore"

By C. P. GILCHRIST, JR.
Supervising Biologist, Eastern Virginia

The strikingly marked Louisiana or tricolored herons are relatively new residents of the area.

I DO not really qualify as a confirmed and committed bird watcher, and in fact I do not often spend much time just watching birds, but when I unexpectedly discovered a really startling conglomeration of bird life that included, in one strangely mixed community, birds that at that season should have been north of the Arctic Circle and species that one would have expected to find on the coast of the Gulf of Mexico, the chance to observe some of these unique visitors in company with a number of our more common residents I found well worth the sacrifice of an afternoon of fishing. Besides, the fish definitely were not biting.

I was on our Eastern Shore for a day of flounder fishing. The weather had been cold, so we did not expect much luck, but the main purpose was to get out on the water.

Shortly after sunrise we loaded our boat with fishing tackle, bait, lunch, extra gasoline and all necessary safety equipment and took off for a day of fun. After about half an hour's run we joined the party boats flounder fishing near the inlet. We fished all morning with very little luck and as noon approached we decided to go ashore on one of the islands and eat lunch.

The island that we picked was a little higher than the surrounding marshland. It would be known locally as a "Tump." This tump was high enough to support a few stunted cedars and some saltwater bushes in addition to the common saltwater grasses. As we were eating our lunch we became more and more aware of the large number of different species of marsh and water birds that were on or around this small piece of land.

We decided that maybe it would be more interesting to look at the bird life on this area than to return to our fishless fishing. We cleaned up the trash from lunch, checked the mooring of the boat, got our binoculars, and set out to explore the island after giving each other a spraying with insect repellent.

Not being an avid bird watcher I soon found that I had become very rusty on my bird identification and needed a lot of review, especially on the many small sandpiper type of shore birds that I did not, or should say could not, identify. To make identification more difficult this trip took place when both migrants and locals were in the area.

As soon as we deserted our lunch site a pair of boat-tailed grackles descended from the nearby cedars to check the area for leftovers. When in flight they give the strange appearance of having a lopsided tail. This is due to the tail feathers being folded vertically in a V shape with the outer edges being brought near together.

We moved very slowly toward the center of the island and while enroute flushed several willets. They circled us screaming kay-tee, kay-tee as if to say "Get off of our island and leave us alone." Their flashy black and white wing stripes made a very striking sight as they hovered over the marsh.

Finally we reached a series of non-tidal, shallow ponds, and much to our delight we found snowy egrets and glossy ibises wading in these ponds in search of food. In a salt-water bush adjacent to the pond sat a pair of Louisiana or tricolored herons. This triple find in one small area was a real stroke of luck. The glossy ibis and the tricolored heron are relatively new residents of this area.

After leaving the interior of the island we moved toward

The glossy ibis, like the Louisiana heron, is a more typical nesting species farther south than in Virginia.

A snowy egret in breeding plumage perches in a saltwater bush with a Louisiana heron in the background.

Game Commission bird photos by Kesteloo

a section where several small tidal creeks or guts entered the marsh. Mud flats were exposed and several clapper rail were crabbing along the water's edge. Standing in the short marsh grass on one of the points along the gut was a whimbrel or Hudsonian curlew. It gave the impression of having far away places on its mind. I expect this was true because he or she should have been bound for the breeding grounds in the Arctic. Around the next bend in the creek there stood a black-bellied plover that also was probably in migration.

We approached a small, shallow, bay-like area in the creek and saw a flight of skimmers approaching. As they neared the bay two of the birds dropped down to where they were just clearing the surface of the water. When they reached this point they began cutting the surface of the water with the tip of their bills. They certainly came by their name properly as it appeared to be impossible for them to skim so close to the water without hitting it with their wings. They appeared to be scouting for minnows because after one short run they pulled up in flight with the rest of the flock and moved out of the area. They are a strange looking but still graceful bird when skimming along the surface of the water. You wonder why he doesn't break either his bill or neck by hitting a submerged object.

We completed the circle of the island and as we approached the area where the boat was moored, we noticed that the tide had fallen to a level where a long sandbar was exposed. There were a number of birds on this spit of land either loafing or preening their feathers. The first to catch my eye was a pair of oyster catchers that looked very dapper with their vermilion bills, glossy bluish black heads and white undersides plus their dignified stride as they moved along the spit of land. Next was a small group of royal terns that were standing on the point facing into the wind and looking very much like a group of weather vanes. There were also several other gulls plus many sandpiper types. I was not sure of their identification.

When we reached the boat we loaded up and headed for the landing which was seven or eight miles through crooked and narrow channels. The trip in was a slow one with numerous stops to check on a bird here and there. We saw many of the same birds that were seen on the island plus the common tern, least tern, great blue heron and a pair of black ducks. Waiting for us when we arrived at the landing, and looking for a handout of left-over lunch or fish bait, were laughing gulls and herring gulls.

We agreed on the way home that even though we had a poor day flounder fishing we did have a fine one bird watching that more than made up for the lack of fish. I also resolved that before I go to the Eastern Shore again I am going to brush up on my small shore bird identification. And next time I will include a field identification book in my travel bag.

Let's Cook Mussels

By MARJORIE LATHAM MASSELIN
Richmond

HAVING been raised in a state where it is possible—but only just—to be ever totally out of sight, sound and scent of the sea, my soul is most complete when standing on a beach under leaden skies loving every angry hurl of the breakers and savoring every brackish wisp of their spray. I love the sea—for itself and for its bountiful harvest.

After we moved to Virginia, the crates were barely unpacked before we found ourselves seaward bound. It was autumn, and a storm was brewing, but the tide was out and so, bundled against the freshening breeze, we picked our way along an exposed sand bar.

The children, still quite young then, were content to examine the residue of shells, comparing them to those already gathered from other beaches at other times. Later they tossed bread to the gulls, admiring the graceful beauty of their sweeping dives to retrieve it.

My husband and I had fallen upon a treasure of greater interest to us. Clinging to a growth of marsh grass was an apparently untapped "goldmine" of glossy blue, bearded mussels.

The mussel is a great delicacy that gets very little attention from American cooks. Richer in color and far more tender than either the soft-shell or hard-shell clam (quohaug), the mussel is one of the most succulent of all shellfish and deserving of far better treatment than it gets.

Mussels need to be scrubbed clean with a stiff brush, but the mussel itself within the shell is not sandy as clams so often are.

Game Commission photos by Kesteloo

They do present some problems in handling. To begin with, mussels cling in clusters to the muddy roots of marsh grass along estuary shores, and can best be gathered at low tide. They must be pried from their mooring with either a small potting trowel or a well-gloved hand. Otherwise, you will have a collection of cuts and broken fingernails as well as a collection of mussels—that is, if you persevere at all!

Next they must be cleaned thoroughly. Their shells must be scrubbed clean with a stiff brush and their "weedy" beards must be pulled with a firm yank. Several washings in clean water will be required. However, the mussel itself is never sandy as clams and oysters often are, nor do they have any tough neck skin to remove as soft-shell clams do.

Once the washing is accomplished they can be simmered in a combination of white wine and water with appropriate seasonings which are later removed. The cooking liquid is strained and reduced to a usable quantity. They should be cooked only until the shells open—about 3 to 5 minutes—cooled in the cooking "liquor," and then removed from the shell. If you missed any of the beard, it can be snipped off with kitchen scissors.

The mussels when prepared in this way can be eaten like clams—that is, dipped in melted butter, sauced and baked au gratin as Coquilles St. Jacques are, used as a garnish for flounder or sole, or combined with other fish and shellfish to make a bouillabaisse.

My suggestion if you are sampling mussels for the first time is to select 15 or 20 per serving and simmer them in a large kettle containing 1 cups water to 2 cups white table wine. Crover Nacktarsch is an inexpensive white wine (Moselle) of this sort that serves excellently. Add a small bayleaf, 4-5 black pepper-corns, and about 2 inches of the top of a green onion cut close to the white root. Mussels have

a most delicate flavor that is easily overpowered, so caution must be exercised in the use of seasonings.

Melt 2 ounces of butter for each serving. Coat each mussel generously in the butter and then eat it hot and dripping with the butter.

Once you have enjoyed them in this way, you may be reluctant to disguise them at all. However, if the supply is short you can spread the wealth around, so to speak, by preparing them in these other ways.

Moule St. Jacques

Reduce the strained liquid from cooking the mussels to 1 cup. Make a roux using 3 ounces butter to 3 tablespoonfuls flour. Blend in the cup of stock and smooth the sauce with an additional cup of light cream. Add 2 cups of mussels to this sauce, and then fill coquilles (large, flat scallop shells that can be purchased in a department store for this express purpose) with the mixture. Spread a tablespoonful of buttered crumbs on top of each filled shell and broil 3-4 minutes or until browned and bubbly. A single shallow, open casserole will serve equally well.

Shoestring potatoes, deep fried, and asparagus tips that are very fresh so that the earthy flavor is still with them, are good go-togethers.

For the asparagus, use only 2 or 3 inches of the tips, and cut the stem end oval to match the tip end. Drop into rapidly boiling salted water for just 2 minutes. Never overcook asparagus as it should be a bit on the "crunchy" side. Drain it very carefully and "bathe" it in butter.

In spring, an unusual and delectable treat to use in place of the asparagus which is difficult to get fresh enough to be tender unless you grow it yourself, is—of all things! —milkweed. You must gather the first tender shoots, not more than 3 or 4 inches above ground, and still so young that the leaves remain folded close to the stalk—not yet open at all. Cook them the same way as the asparagus except that you need to cook them a minute longer. The flavor is delicate but distinctive and without any of the bitterness so often characteristic of "wild greens."

Essentially the same sauce as that used for Moule St. Jacques, with as few as 1 cupful of mussels added along with ½ cupful shrimp or flaked crab, may be used as a garnish for a large platter of fillet of flounder, sole or red snapper. Any fish large enough to fillet and firm-fleshed enough to poach can be used successfully. I suggest using a shallow copper casserole or any other kind of cooking utensil attractive enough to go directly to the table. The fewer times a fillet is transferred from one dish to another, the more likely it is to reach the table in one piece.

Cook the fillets in plenty of butter with just enough white wine added to make sufficient steam to cook it. You will want to cover the casserole, and a piece of foil works quite well if you haven't a cover that goes with the casserole itself. Cook away the wine and then the remaining butter can be poured off carefully and used in making the sauce.

Use some nice fresh parsley or watercress for a garnish and line up a parade of sauteed mushroom caps down the center of the finished dish.

Small, new potatoes boiled whole, and a dish of green peas and baby lima beans go well with this. For the peas and limas I suggest using the frozen kind that come sealed in plastic cooking bags. This way you can cook them separately but in the same utensil, adding the peas which need a shorter cooking time after the limas have been started. Mix together only when ready to serve.

On Robin Raising

By JOYCE FITCHETT RUSSELL
Kilmarnock

Game Commission photo by Kesteloo

AS I ironed one afternoon in early July, I heard a robin distress call. Thinking the neighbor's cat was the culprit, I went out to check. The male robin cried more insistently at my approach and flew to the neighbor's clothesline, as if I were an even greater threat. No cat was in sight. Twice I returned to see what was bothering him, but could find nothing. After supper my husband walked out into the backyard and nearly stepped on a baby robin. No parents were to be seen.

When my husband lifted his hand to show me the speckled ball of fluff nestled deep in his other hand, a snapping mouth informed us the deserted baby was also starving. A quick call to a nature-loving friend who was already raising a robin brought us these terse instructions: "Soak dry dog food until soft and break into pieces the size of a pea. Pass your hand over his head to get him to open his mouth. Drop in the food until he begins to gurgle. Repeat every two hours. Supplement this diet with five or six worms daily."

As the dog food soaked, we debated our course of action. The apparent nest from which he had fallen or flown was on the end of a limb about seventy feet up a pine tree. Our ladder would not reach this far, nor would there have been enough support for climbing. Furthermore, we were not certain this was his nest, nor that he would stay there, nor that his parents would return to him.

Upon these uncertainties was added our heartbreaking failure to save baby birds in the past. When the wren mother had drowned in the water pail, we had force-fed the four babies, only to have them die within twenty-four hours. More recently, a baby bluejay we had repeatedly rescued from the ground and replaced in nearby trees had been devoured by a passing Labrador retriever. This last disappointment made my son determined to save this baby. My husband and I reluctantly agreed to try again, although the three weeks we estimated it would take for him to be self-sufficient loomed as an eternity. One thing we were to learn: robins are a hardy breed.

Convinced that we had lost the wrens because our fingers offering food did not simulate the sharp-pointed bill of the mother, our son hastily whittled a clothespin to a point. Fooling our baby, however, never was a problem; rather, the problem was getting the next bite ready by the time his mouth popped open for it. He gulped down the dog food in rapture until suddenly he started making the contented sounds of a baby chicken, closed his eyes and snuggled even further down into my husband's hand.

Meanwhile, our son found a cardboard box and lined the bottom with paper and excelsior. Thus our bird had his first home.

Now we had time to look him over. We marveled at the brilliance of his coloring: His head was jet black and his back was much darker than that of the mature bird I had seen earlier. He had no white eye ring so that his black eyes seemed especially large and bright. His flat, yellow bill was obviously a baby's. On his neck was an elongated white diamond bordered by black and white stripes. His breast was pure white heavily speckled with black. Under his wings the rust shading was dark and much brighter than that of the older bird. The stubby, fan-shaped tail had a very distinct half-dot on the tip end of the two outer feathers. While we were studying him, he abruptly opened his eyes, stretched to attention and squawked loudly, "TWERP." He had named himself.

Although we covered his box with a window screen and cloth to protect him from the cat as well as to contain him, he was awake and chirping early next morning. He ate heartily and seemed alert and lively, even trying to fly out of the box. Still unable to stand tall, he squatted and fluttered from one place to another. In anticipation of his growing strength we inserted a dowel pin in his box and lifted him onto it. He perched determinedly. Sometimes he would jump off and have to be replaced to prevent him from beating himself to death trying to fly up to it.

On the afternoon of the second day our son rushed in with the news that he had found another baby. Unfortunately, our dog accompanied us on our investigation: The baby flew into the bushes and the parents sent up loud warnings. We retreated and decided to let Nature take care of its own, while we did our best for our orphan. One thing we had learned: our Twerp was a male, for his sister had been far more subdued in coloring.

Sadly two days later we watched the parents gathering nesting materials and concluded the other baby had not survived.

News traveled fast and a young neighbor contributed a proper gilded bird cage to the cause. It boasted a series of perches crowned with a swing in the top. Twerp was fascinated with the exercise facilities and hopped busily until we moved him up to the swing. He was instantly hypnotized, swinging first slowly and then faster and faster until we were certain he would grow dizzy. When we checked on him at our bedtime, he was sleeping soundly, still swinging wildly.

Dog food seemed to satisfy our bird, but his supplementary natural diet was proving a real problem. The drought was severe and digging was hard work and fruitless as far as worms were concerned. In the spring before, our son had conducted a science experiment by using coffee grounds to attract earthworms, with excellent results. The project was renewed in two places: one in the sun, one under a bush. Coffee grounds were dug into the soil, thoroughly soaked and covered with wet newspapers and burlap. For three weeks we faithfully continued digging—to no avail. Crickets however, eventually began to hide under the burlap and became a favorite treat. Sometimes hard black bugs were there, too. We scoured the basement for spiders and took the fly swatter everywhere. I drove all over the county searching for bloodworms at fishing docks. I purchased six at a time and kept them in my refrigerator, rationing them to him one at each feeding. I collected, washed and issued to each member of the family a small bottle every morning. These containers were to be filled—hopefully—and returned

at lunchtime and again after work.

Nearby was an oil company and we made many trips there to roll away the oil drums and catch the crickets hopping out. My husband was an expert at grabbing them. On one successful foray, I had carried a plastic bag into which we corralled seven large crickets. Since we were going for a boat ride, I stuck the bag in my pocketbook. Sometime thereafter I reached in for a handkerchief and stared into the eyes of a cricket! They had eaten their way out of the plastic bag and were all loose in there. I had hysterics, partly in fright, but mostly in disappointment for my baby. Ingeniously, though, my husband emptied his tacklebox, caught the escapees and re-interned them.

We took turns feeding Twerp. Always ready for food, he would answer our voices with a steady baby food call. As the food came near, he would squat down to make himself small, and flutter with one wing always lifted much higher than the other. If he was on a perch, he would inexplicably hop away from the feeder; on a flat surface, he would dance around until his back was toward the feeder, and hitting the target required real skill.

Since our intention never was to keep Twerp as a pet, we tried diligently to prepare him to return to the outdoors. This preparation was accomplished by removing him from the cage and taking him outdoors for fresh air one morning soon after we found him. The sun was hot and he dozed for an hour. The second time out when I set him on a

low limb, he immediately flew some fifty feet up into a sycamore tree. Coaxing brought a food call response, but he could only fly higher. Hunger and a ladder eventually brought him down, but once his appetite was satiated, he flew away again. He was growing up.

Although he no longer identified with us except at mealtimes, he continued to stay close by so that we were able to observe him and his endearing habits. Immediately after eating he would fluff up and take a nap, just like a human baby. Refreshed, he would begin a thorough preening. Thereafter, he busied himself watching the passing scene. Whenever a robin called, he snapped to attention, as if orders were being issued to him. Then, when I called him down for his next feeding he always followed the same procedure: He would stretch one wing and leg out, always losing his balance; then he would stretch the other, and, recovering, would stretch his skinny legs as far up as he could go. His resulting appearance was ludicrous.

One cool morning, I coaxed him from the plentiful shadow out into the warm sunshine only to have him suddenly collapse on the grass, wings drooping and feathers ruffling. Watching other robins since then has convinced me they enjoy sunbathing just as sparrows like dust baths.

As the days passed, we decreased our vigilance as his natural wariness grew. Still, I managed to get up at sunrise to feed him so that hunger would not drive him to be careless. One morning I glanced out the window and saw our cat creeping up on him as he pecked unsuspectingly around a stump. I yelled and he flew up. The cat was disgruntled. Our jealous dog also proved to be a problem and had to be restrained during bird feeding.

Once, instead of standing under a limb accessible to us both, I walked out into the clearing beside our porch and called him. He tried to land on my head but I cringed; he nearly crash-landed into the house. Another time he heard me talking with guests on the porch and kept buzzing the roof.

One mis-adventure befell when we went out for a brief fishing trip and had such success that we were gone five hours. Needless to say, Twerp met us, chirping eagerly. He devoured his dog food, countless crickets, and, for dessert, a three-inch-long grasshopper. We were uncertain about killing it and cutting it into small bites, but my husband elected to drop it alive and whole into his mouth. One-third disappeared and Twerp sat still. Certain he was strangling, we were paralyzed. Then he straightened up and swallowed another third. Ultimately his crop distended to admit the remainder and our bird began gurgling happily.

During the night a thunderstorm came up and rain poured in torrents. I sat up and worried, but morning found Twerp unaffected by the dampness. He apparently slept in the utmost treetops, since he always headed upward after his dusk feeding and could be heard early mornings much further up than he stayed during the day.

Twerp's growing confidence was bound to lead to foolhardiness, and it first occurred while he sat in his favorite dogwood at our back door. Underneath was the birdbath which had not attracted him until a brown thrasher arrived for a drink and a bath. Twerp watched with increasing agitation. Several times he leveled off for flight, then reconsidered his formidable enemy. Finally, however, he charged, and the surprised thrasher, after a brief encounter, retreated. Our robin enjoyed a long first bath, allowing no intrusion from the sparrows eagerly waiting.

Soon after, a mature male robin challenged him as he sat up in a nearby maple. They skirmished in mid-air, and one flew off defeated. Angry, I looked at the limb now occupied by the victor—to my amazement it was Twerp.

As we began our third week of caring for him, it became difficult to recognize him, for his tail was as long as that of a grown bird. Our wild cherry tree was laden, and he joined the other birds in harvesting it. When he did come to us, we would lift pieces of our slate walk and let him catch the insects beneath. What we had caught for him, we would mash slightly and let him chase, peck, shake and devour. In this pursuit we finally learned how he preferred his food: freshly killed, with legs disjointed. Later we learned robins do not like fuzzy caterpillars, but unwittingly he had eaten his share.

And so, on the twentieth day we had fed him, he refused to come down for my husband's handclap, and only much urging from me brought him spiraling down directly in front of me. He was totally facile now at expert maneuvering. I fed him mid-afternoon as usual, but at dusk another storm was threatening. As he came back down to me, a limb fell in the backyard and he flew away. The rain came and he never returned. Our mission had been fulfilled.

Commission Elects New Officers

Chairman A. REE ELLIS

At its regular annual organization meeting the Commission of Game and Inland Fisheries elected A. Ree Ellis of Waynesboro to serve as its chairman for the July 1, 1968-June 30, 1969, term. He succeeds J. C. Aaron of Martinsville.

Game Commission photo by Harrison

Vice-chairman RALPH G. GUNTER

Ralph G. Gunter, Abingdon, was elected vice-chairman, successor to A. Ree Ellis.

VIRGINIA WILDLIFE

☆ ☆ ☆ ☆

CONSERVATIONGRAM

Commission Activities and Late Wildlife News . . . At A Glance

NORTHERNS RELEASED IN GASTON AND OTHER STATE WATERS. Approximately 4,000 nine-inch northern pike were recovered from the Game Commission's rearing pond at the Elm Hill Wildlife Management Area, the remaining northerns going directly into Gaston Reservoir. Fifty-five spawning adults and 500,000 fry were placed in the pond in April to produce this year's crop. The young northerns that were removed were subsequently stocked in Occoquan, Orange, Chickahominy, and Beaver Creek Lakes and in the Mattaponi River. Fifty of the adults were recovered and returned to the hatchery. To date only one undersized northern has been authenticated from Gaston, but a number of northerns the same age as those first released into Gaston have been caught in Commission-owned Lake Orange.

OVER 3,000 PHEASANTS AND OTHER EXOTIC BIRDS STOCKED. Over 3,000 pheasants and other exotic game birds were stocked by the Game Commission in all principal geographic regions of Virginia this spring. Some 2,338 of the birds were various strains and crosses of the Iranian pheasant group. These were used to bolster previous releases and to stock new experimental areas, including a new site in southwest Virginia. The U. S. Fish and Wildlife Service credits Virginia with the first definite establishment of these birds in Charles City County and a release site in Page County shows promise of becoming the second.

A total of 185 Japanese green pheasants were used to bolster experimental stocks on the Eastern Shore, the only portion of Virginia considered suitable habitat for these birds. Some 300 Kalij pheasants, a grouse-like bird first released in southwest Virginia, were released in Cumberland County to see if they would utilize this habitat which is marginal for ruffed grouse.

ARCHERS BAGGED 337 DEER IN 1967-68 SEASON. A tabulation of Game Commission big game kill tags reveals that archers bagged 337 white-tailed deer in Virginia during the 1967-68 hunting season. Of these, 185 were taken west of the Blue Ridge and 152 east. Chesterfield County, aided by special hunts on Presquile National Wildlife Refuge, led the state with 39 bow-killed deer. Twenty-seven of the eastern total were bagged in Patrick County. The Newport News-Hampton area yielded 23; Augusta and Wythe Counties were the best in the west with 19 animals each. Grayson and Rockingham each reported 19. The season was nearly the same as the previous year when archers downed 320 deer in the state.

450 APPLY FOR GAME WARDEN JOBS. A total of 450 applications were received in the latest game warden recruitment program. About 100 of these were scheduled for oral interviews and physical agility tests in Richmond and Roanoke in late June and early July. Approximately 12 will be selected for training at a special three-week school in September and eventual certification as game warden trainees. All applicants took a detailed written examination which was used as a basis for selecting candidates for the oral interviews. Those hired will be classified as game warden trainees for 12 months and will then be assigned to permanent positions as openings arise.

NEW LAKE IN THE WORKS

By OZZIE WORLEY
Roanoke

A LAKE with a 51-mile shoreline—offering many new fishing, boating and camping opportunities—is in the planning stage for two Southwest Virginia counties.

Called the Hipes Reservoir, it would be created on Craig Creek in Craig and Botetourt Counties, about 15 miles upstream from where the stream empties into the James River.

A corollary to the project—the prospect of some outstanding trout fishing water below the dam—should capture the interest of sportsmen as much as the lake proper.

The Army Corps of Engineers would build the project under the Appalachia Regional Development Act of 1965.

The Engineers propose to acquire fishing rights from below the dam to the James, and this is where the trout bonns would figure in. The Commission of Game and Inland Fisheries would supply trout for stocking, according to Jack Hoffman.

Hoffman, who is chief of the Commission's Fish Division, said the 15-mile stretch of water could very likely offer trout angling equal to that expected in the Jackson River below the Gathright Dam. This impoundment now is under construction above Covington.

The Hipes Reservoir would be a sister project to Gathright. The Army Engineers say both would have the purpose of providing flood protection in the James downstream as far as Scottsville, and would improve water quality all the way to Richmond.

The Hipes dam would be constructed to discharge water of the proper temperature and oxygen content for trout.

At present, Craig Creek's water is too warm for them—with smallmouth bass, chain pickerel (duckbill pike), sunfish and some largemouth bass the primary species present.

Much of the land bordering the creek is "posted," meaning that only landowners, summer home owners and their relatives or friends have opportunity to wet a hook in it. This, of course, would come to an end in a big part of the creek should the Hipes project reach fruition and so-called "bank rights" be obtained in the creek below the dam.

In the lake, itself, warm-water species of fish—bass and bluegills—would be stocked, Hoffman said. Trout likely would be tried here, too, with the hope that they would catch on as they have in some other impoundments, notably Philpot Reservoir and Carvins Cove.

Some vital statistics on Hipes:

It would form a lake of approximately 1,000 acres.

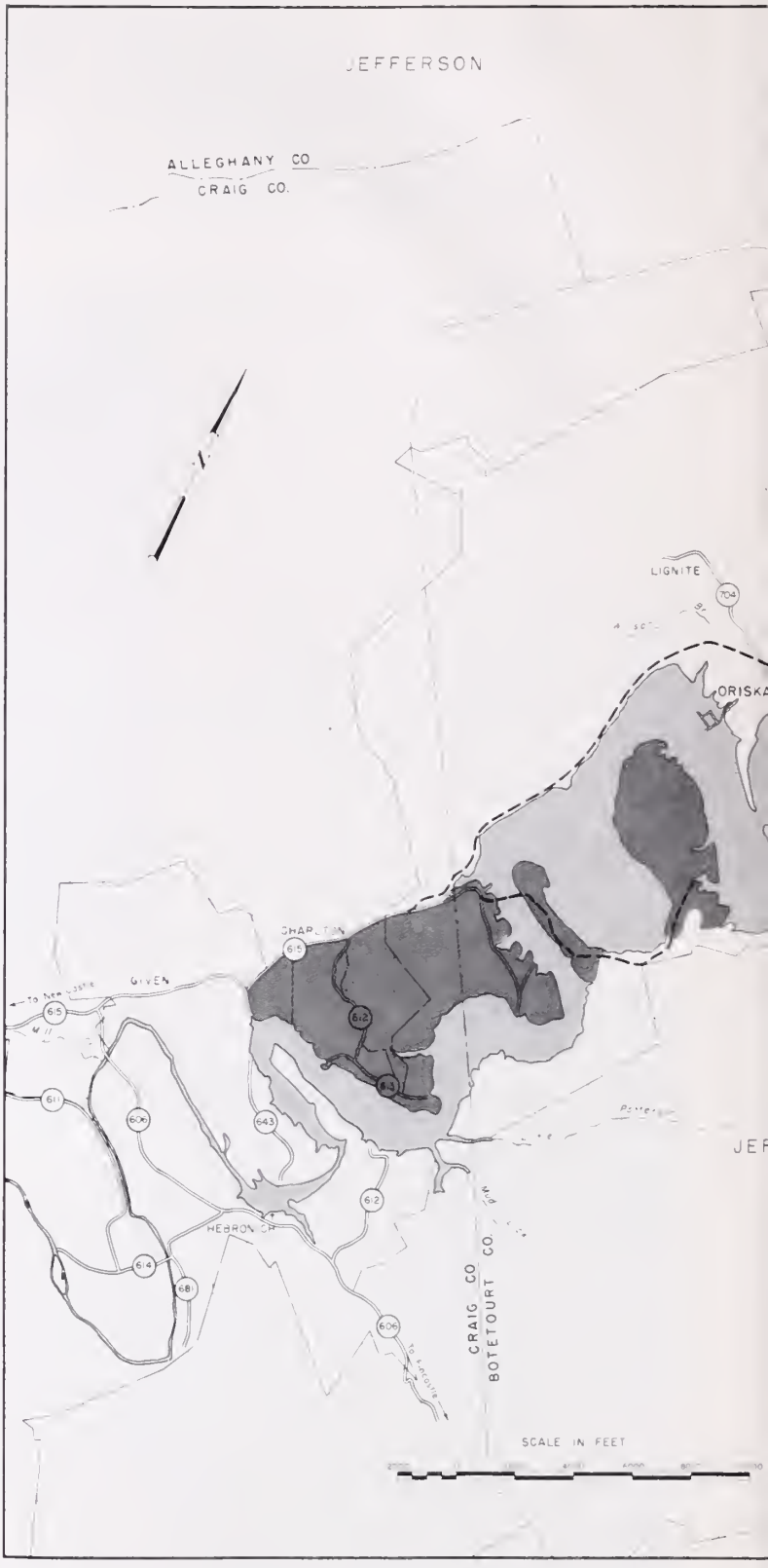
It would cost about $22 million.

A 2,100-foot earthen dam would impound the water.

About 8,800 acres would be needed for the project—6,800 in Botetourt and 2,000 in Craig.

The Army Engineers would buy a 300-foot buffer strip around the lake to insure unhindered public access to it.

Well over 1,000 acres would be developed for public recreation, including "islands" or "peninsulas" for this purpose scattered up and down the lake.

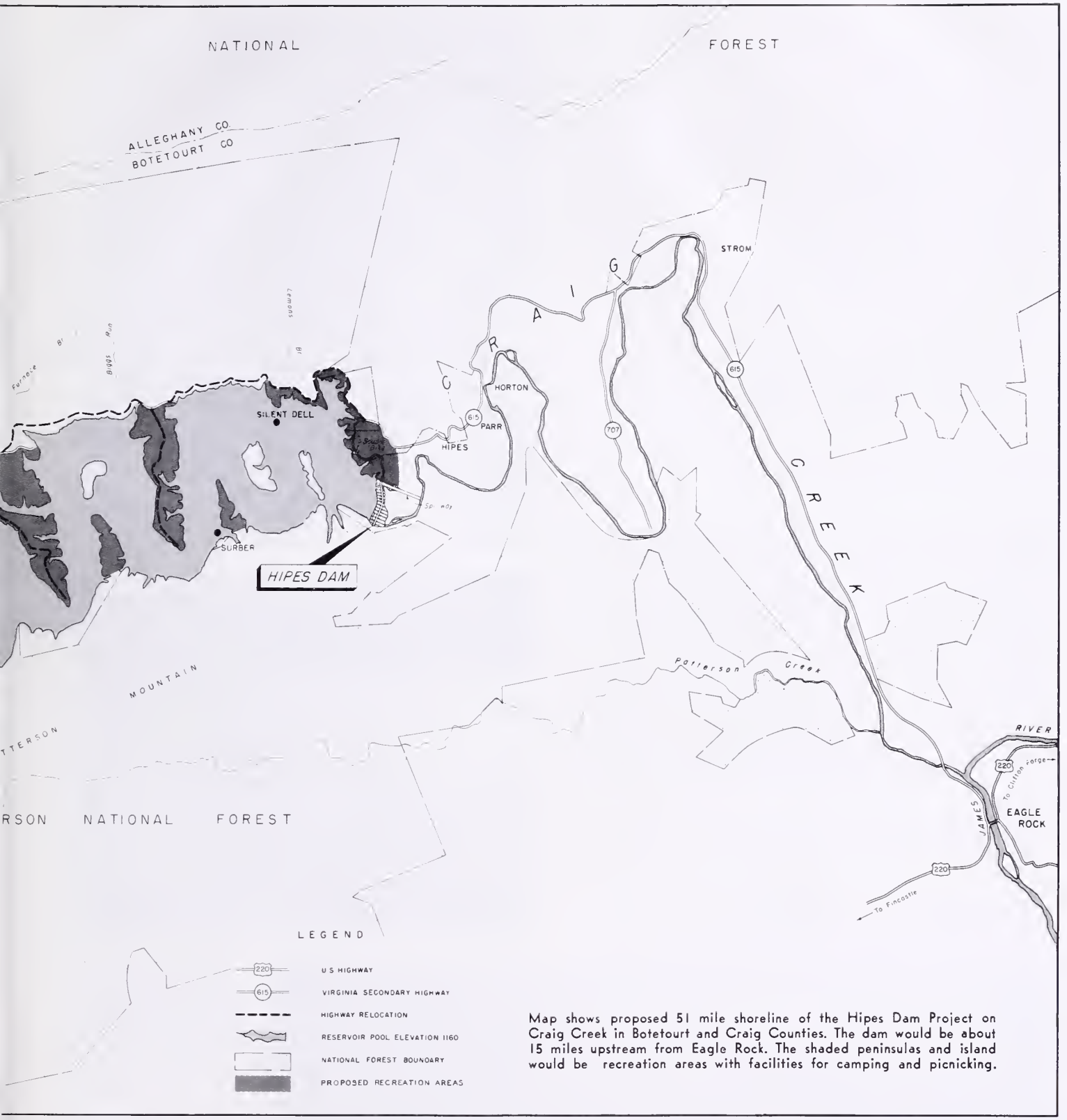


Col. C. E. Adams, Jr., the Corps of Engineers Norfolk District engineer, pictures the lake like this:

"It would be an attractive reservoir with a pleasing shoreline and a fluctuating water level of about two feet or less during the primary recreation season of an average year, and 12 feet or less in 8 years out of 10."

Jefferson National Forest land borders the proposed project at several points, and the forest people would cooperate in the development of recreational facilities.

The lake is no "this year or the next" sort of proposition.



Map shows proposed 51 mile shoreline of the Hipes Dam Project on Craig Creek in Botetourt and Craig Counties. The dam would be about 15 miles upstream from Eagle Rock. The shaded peninsulas and island would be recreation areas with facilities for camping and picnicking.

"It will be years before it will get to the point of actual ground work," Col. Adams says.

His timetable calls for the project to be submitted to Congress, with the recommendations of the President, "not later than December 31, 1968." It then would have to take its turn with other such proposals in the hearings-and-legislative mill.

Nevertheless, the project is getting off the ground. A public hearing was held in December, 1967, at the courthouse in Fincastle, when both backers and opponents of the reservoir spoke.

Some land owners opposed it bitterly.

But, aligned behind it was an impressive bloc of organizations, ranging from the Botetourt County Board of Supervisors to the Richmond-James River Basin Association.

One member of the Craig Supervisors, Raymond C. Crush who owns a farm that would be lost to the lake, has resigned because of his opposition to it. Two other members of the board have come out for it.

As one man at the hearing said, though, when the Corps of Engineers decide to build a dam, they usually win "so don't take any bets against it."

Scott-Wise Lake

By H. L. GILLAM
Information Officer

SCOTT-WISE Lake is constructed on Jefferson National Forest land and the National Forest has developed and maintains the recreation facilities. It is also known as Bark Camp Lake and Corder Bottom Lake.

The lake covers 48 acres and its brown-stained waters remain cool the year around. The lake is located between Tacoma and Dungannon in northern Scott County, surrounded by rugged wooded mountains. Recreational facilities, which are being re-vamped, include a swimming beach, spacious picnic area, boat ramp and dock. These facilities are to be completed by the fall of 1968. Camping is provided nearby on Forest Service land. There is no concessionaire and, consequently, no boats or bait available at the lake.

Bluegills make up the bulk of the fish catch followed closely by black crappies and a fair number of bass. Bluegill fishing is best from May through early fall. Crappie are most cooperative in March and April. Bass hit best in April, May and June. A National Forest Stamp is required of all anglers, in addition to a valid fishing license.

The lake's cool waters yield good numbers of bluegills and crappie, plus largemouth bass. Fishing is best in spring and summer months.

Scott-Wise Lake lies in the rugged mountains of the Jefferson National Forest. The recreation area, to be completed late in 1968, will include picnicking, swimming and boating facilities.

Bass Can't Resist

PLASTIC WORMS

By BILL COCHRAN
Roanoke

THE first time I saw a plastic worm bass lure I almost laughed out loud.

"What bass would be stupid enough to fall for a thing like that?" I thought. "And what fisherman would be even more stupid to try fishing with such a ridiculous creation?"

My, I'd hate to try and count the times I've had to eat those words. Without doubt, the plastic worm is one of the hottest bass lures being used in reservoirs, ponds and streams across Virginia.

Those of us who have been fishing several years know that plastic worms are a fairly new creation, coming out about the mid-fifties. It was back then that I had laughed.

Sure, that first plastic worm I saw looked exactly like a real nightcrawler down to the last detail. And that was one reason I didn't think much of them in the beginning.

For one thing, I'd always found live worms to be a poor bass bait. I can recall a survey on a certain lake where artificial lures caught more than 28 times as many bass as live worms.

Secondly, I'd never been able to catch fish on any lure designed to look exactly like live bait. I'd been fooled by useless rubber hellgrammites, crickets and crawfish too many times. It seemed the more realistic they were, the less action they had. As a boy, I found them good only for taking to school to scare the girls.

But, somehow, a few plastic worms found their way into my tackle box. They were of the old type, rigged with three hooks, plus a monofilament line and a couple of bright colored beads and spinner out front.

They mostly just went along for the ride in my tackle box for several years. Then someone convinced me I should try one.

Boy! What I had been missing. The plastic worm is truly one of the most effective lures ever devised. It is now not only one of the most productive lures, but also one of the most popular, with thousands being sold annually. If used, it can turn an average fisherman into a good one.

On the market today are a great variety of types and colors of plastic worms. One company alone lists over 50 colors or color combinations. These run all the way from solid black to solid white, with a variety of colorful polka-dotted creatures in between.

Although over 50 color creations is carrying things a bit far, the fact is, color in worms appears very definitely to make a difference. There are times, for example, when one color will outfish another from the same boat.

This being the case, any angler is missing a chance to catch more bass unless he experiments with various colors of worms. My own favorites are purple and black, in that order. Also good are blue, red and natural. Occasionally white will be what bass want.

Some say to use dark worms on dark days and light worms on light days. This doesn't always work best for me, which brings up another point: various anglers will have different ideas on how best to use worms.

This is especially true when it comes to rigging a worm. Many anglers buy worms already rigged; others "roll their own." I use both.

The ones already rigged come with hooks in them and often with a piece of monofilament attached on which may be a couple of split shots. All an angler needs to do is take them out of their wrapper, hook one to his line, and he's ready to cast.

When you roll your own, you purchase the worm, hooks and split shots separately. My own method of rigging them is this: I use a 3/0 weedless hook. I take the worm, holding the head between my thumb and forefinger and start the point of hook down through the tip of the head to about one-half inch, then work the bend of the hook out of the worm. I make certain the worm is clear of the bend of the hook because if it isn't, it will often cause your line to twist.

On my line, about six to eight inches above the worm I clamp two small split shots. Instead of split shots, some fishermen are now using hooks with weighted shanks. More or less weight may be used, according to how deep you need to fish.

Rolling your own worms is cheaper than buying those

(Continued on page 18)

Good string of bass taken at Kerr Reservoir on plastic worm.

rigged. However, worms already rigged are quicker and easier to use and are often well balanced. Certainly, there is a place for both.

Now, about fishing a plastic worm. First, it may help to rationalize the reasons why plastic worms are so attractive to bass. I'll greatly rule out the thought that bass go for them because they look much like a real worm.

Plastic worms are attractive to bass, I believe, because they have a most pulsating, shimmering wiggle to them which represents something alive, juicy and edible to Mr. Bass. Worm designs have changed considerably recently. They now come in many shapes and sizes, from those as small as meal worms to some as large as water snakes. One popular and productive newcomer has twin tails. Another is a short, fat worm about two inches long.

A second attraction of worms to bass is the fact that when a fish takes one into his mouth, it is soft and feels like something good to eat—not hard and unreal like most plugs which a bass will quickly reject when taken into his mouth.

Some worms are made even to smell good to bass. You've probably noticed that they smell something like licorice. Dave Goforth, lure designer of the Parrish Bass Lure Co. in Greensboro, North Carolina, tells me soon on the market will be a plastic worm that even tastes to a bass like something good to eat. Plastic worms of the future will also be more durable and will have better weed guards.

Doubtlessly, one of the big reasons plastic worms have been so successful is that they are a lure fishermen realize must be fished deep and slowly. Too often a fisherman will cast a conventional-type plug out, then monotonously and rapidly reel it back, way too fast and way too shallow. Anglers seem to realize they can't work a worm that way; therefore, they get it deep and work it slowly, and it reaches those pockets where bass gang up in bunches ready to be picked like grapes.

There are a variety of ideas about how best to fish a plastic worm. After several years of experimenting, here's how I do it:

I make a cast, leaving open the bail of my open-faced reel, thus allowing the worm to sink slowly without resistance from the line. Often a bass will grab the worm as it sinks. If he does, I don't strike unless he hits very hard. I let him have the worm, hoping he'll work it into his mouth like a cow chewing long grass. Sometimes he'll run a short distance; sometimes he won't. If he does, I let him have line without resistance. When I believe he has the worm well in his mouth, I sock the hook to him.

This bass found out too late worm was a fake.

If I don't get a strike while the lure is sinking or has settled, I then begin my retrieve. It is worth repeating: the retrieve is a very slow one. I retrieve as much with my rod tip as with my reel, raising the tip up enough to make the worm leap several inches off the bottom, then settle back down again in a wiggly, tantalizing way.

I try to keep my line taut enough to know when a fish mouths the offering, but not so taut that he'll feel something artificial when he takes the lure. If he takes the lure, I flip open the bail of my reel and let him have it. He may want to run; he may want to sit and chew. I leave that up to him.

Naturally, some judgment must be used here. If you allow him to have the worm too long, he may spit it out. Occasionally a bass will strike a lure so hard that you may set the hook immediately. You must learn through experience when it is best to strike. As a rule, the bigger the worm, the more time you must give the bass. Small or short worms may be struck immediately.

Weeds sticking out of water off a point make an ideal place to work plastic worms.

Striking techniques vary considerably from one experienced fisherman to another. Dave Goforth, for example, will let a bass have his worm so long before striking that you'd swear the fish has had time to digest it. Rufus Eubank, a fishing guide on Smith Mountain Reservoir, strikes immediately—at the first hint a bass has his lure.

I feel that how you strike is important. A good strike for plastic worms is the one live-bait fishermen have used for years—the tight line strike. If you strike with a loose line, chances are you won't get the hook into the bass well, if at all. Instead, lower the rod tip toward the bass, carefully reel in the slack line until it becomes taut, then strike fairly hard.

A fisherman should be careful removing the hook once he's caught a fish with a plastic worm. Worms are soft and can be ruined in this operation. If you must use pliers, use the needle-nose type and grasp the hook near the bend, not the worm itself. One weakness of plastic worms is that they tear easily at the hook. Worm makers are coming out with new designs that improve durability.

Bass taking a worm will generally be near the bottom among the weeds and brush. Don't be afraid to horse one up a little when first hooked. After you get him started up from the bottom, you can play him carefully in water with less obstructions. For this reason, line of somewhere around eight- or ten-pound test is generally used. Hooks with a weedguard are normally needed to get the lure down to the bass without hanging up.

When I fish with worms, I don't move around as much as while casting other lures. I'll find a good point or underwater shelf where bass tend to gather in bunches and work it well. Sometimes I'll work from the shore, casting out into the main body of water; other times I'll carefully anchor just off the productive area and cast toward the bank.

Maybe you've found through personal grief that plastic worms allowed to lie in a hot tackle box against other lures sometimes eat the finish of other lures or eat a chunk out of your tackle box. Keep the worms in an envelope or in a small bottle of water.

Plastic worms are still new and most of us are learning something fresh about them each fishing trip. This adds to the fun, as well as the success. One thing for certain. The plastic worm has solidly established itself as a bass getter and should be a part of every serious angler's tackle.

NEW LICENSE IS OFFERED

By SAM J. PUTT
Chief, Fiscal Division

ON July 1 the Game Commission offered a new combination hunting-fishing-trapping license. Unlike any other license we now have, this one is reserved for a very select and deserving group of sportsmen. It takes seventy years to earn the right to purchase it, but when one gets it, he gets a real prize. It's good for life! He will never need another state resident license to hunt, fish or trap in Virginia. (Unless he loses it!)

This permanent, lifetime license available only to *resident* sportsmen *seventy years of age or over* was authorized by an act of the General Assembly at its regular 1968 session. It costs $5.00, comes in an attractive color, embossed with the Virginia State Seal, and is laminated in plastic for durability.

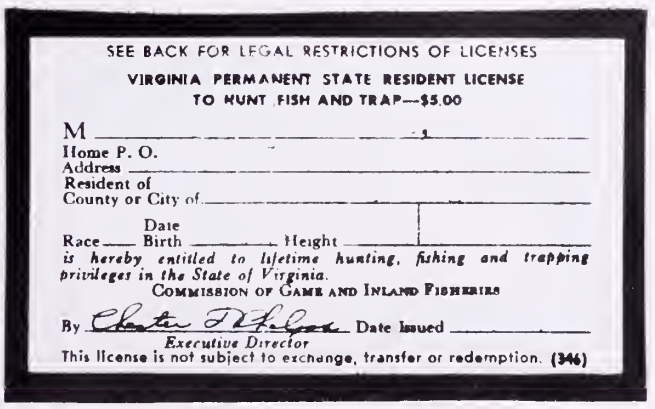
Virginia residents in this age group have been entitled to hunt and trap without a license on private land in the *county in which they reside*, and the establishment of the new lifetime license does not affect that privilege. But it does extend the privilege of hunting and trapping without further license requirements to public as well as private lands, state wide, wherever hunting or trapping is permitted.

Residents seventy years of age or older also have been entitled to fish without a state license, and this exemption from license requirements is not changed by the new license. Therefore, as far as fishing only is concerned, the new license might appear to be of questionable value. But the seventy-year-old sportsman who elects to buy the license and who carries it with him while fishing will find it a convenient means of proving his age and status to the game warden who meets him on the river bank. After all, it's not quite a compliment when a fisherman without a license declares that he has reached the seventy mark and the Game Warden replies, "Why, you don't look a day over sixty-five to me!"

The new license will satisfy all Virginia state hunting, fishing and trapping *license* requirements. It will *not* satisfy the requirement for county big game damage stamps wherever they have been imposed by local legislation or ordinance; National Forest permits to hunt, trap or fish on National Forest lands; daily permits; or federal migratory waterfowl stamps.

Holders of the new lifetime license will, of course, be required to observe all laws and regulations related to the taking of game and fish. Upon killing a bear, deer, or turkey, the permanent license holder should take the carcass immediately to the nearest big game checking station and have an official big game tag attached.

Applications for the lifetime licenses may be obtained from regular license agents of the Commission, but the licenses themselves are issued by the Fiscal Division, Commission of Game and Inland Fisheries, P. O. Box 1642, Richmond, Virginia 23213. Members of the family, or friends, of those eligible may buy the licenses as gifts provided they can furnish all the information required by the applications. The laminated, wallet-size licenses will be issued from the Richmond office upon receipt of completed applications and $5.00 checks or money orders payable to the TREASURER OF VIRGINIA. A copy of the applicant's birth certificate may be submitted in lieu of the driver's license number or social security number as proof of age.


SEE BACK FOR LEGAL RESTRICTIONS OF LICENSES

VIRGINIA PERMANENT STATE RESIDENT LICENSE
TO HUNT FISH AND TRAP—$5.00

M _____

Home P. O.
Address _____
Resident of
County or City of _____

Date
Race ___ Birth _____ Height _____

is hereby entitled to lifetime hunting, fishing and trapping privileges in the State of Virginia.

COMMISSION OF GAME AND INLAND FISHERIES

By Chester F. Phelps Date Issued _____
Executive Director

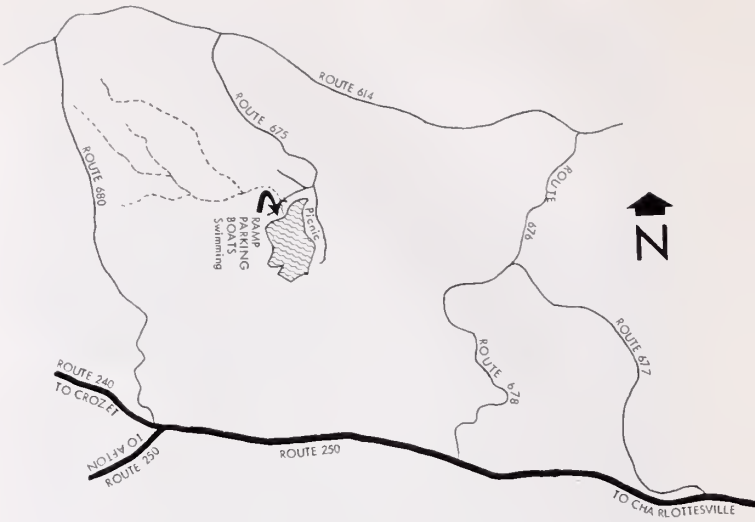
This license is not subject to exchange, transfer or redemption. (346)

To all those who have earned the right to a permanent lifetime license, the Game Commission wishes good hunting and short intervals between bites.

COMMISSION-OWNED LAKES:

Lake Albemarle

By H. L. GILLAM
Information Officer



LAKE Albemarle is somewhat unique in that it is one of two state lakes where swimming is allowed. Built in 1938, this 40-acre body of water is the oldest of the Commission-owned lakes. It is located in the Blue Ridge foothills in a mixed pine-hardwood setting. In addition to the swimming beach, facilities include boats for rent, a concession stand and picnic area.

Bluegill provide the bulk of the fishing in the lake although it also contains largemouth bass, yellow bullheads, black and white crappie, pumpkinseed and longear sunfish, shiners, pickerel and suckers. The lake was renovated in 1958, but less desirable species have made some inroads since that time. Fishing is best from May through August for most species. From 10 to 25 anglers may be found on weekends during these months, in addition to those using the other recreation facilities. Concession facilities are operated from March through October.

The lake has a large watershed area making fertilization impossible. A few water lilies grow along the shores, but the waters are fairly clear and free of obstructions. The lake ranges to 20 feet deep and averages about eight feet in depth. The lake is located west of Charlottesville, just north of the Route 250-240 Junction. Routes 680, 614 and 675 provide the most direct access from Route 240.

Lake Albemarle is located in the Blue Ridge foothills west of Charlottesville. Mixed pine and hardwood timber surrounds the lake.

Commission photos by Kesteloo

Lake Albemarle is one of two state lakes where swimming is allowed. In addition to the swimming beach, facilities include boats for rent, a concession stand with food, drinks and bait and a picnic area.

Aerial Nest of the PAPER HORNET

By FRANCIS D. P. BRUNER
Waynesboro

ARCHITECTURAL engineering now practiced by the social wasps, particularly the paper hornets, predates similar achievements by present-day human engineers by some 30 million years. This pertains to the domicile or gray paper aerial nest that may house thousands of the insects in a single unit during a brief summer season. These hornets, or wasps, are specialized invertebrates that live along the eastern area of the United States. Around Waynesboro, along the Blue Ridge Mountains of Virginia, their aerial communal houses are found in abundance. But in a study of these nests, something should be known about the builders and occupants.

Only the queen hornet has a life span of about 13 months. Hatching out after midsummer she enjoys a month or two of strenuous sex life. Then, being well fertilized, she retires for the winter—hibernating in cracks of rocks, under the bark of trees or in the attic of farm houses or barns. Being about the only member of a large community to survive the winter, the queen emerges in early spring to begin the construction, all by herself, of a communal home. In the first section of the nest she sets up a bachelor apartment and a small hatchery. From the beginning and still alone, she, in about one month, starts a colony of many daughters and a few sons. A caste system soon develops within the nest colony, of the queen mother, ordinary queens, males and workers, with the addition of wingless queens and workers, diminutive workers and fertile workers. The workers are the females and as usual the females are more dangerous than the males. It is only they that have stingers (the repeat type as there are no barbs) supplied with a protein base poison from venom glands in the abdomen. Unaccountably, there is a belligerency toward human beings whose body essence is antagonistic to the chemistry of their own disposition. For females these insects are strangely predictable. You can count on one thing—they sting without too much provocation.

This dangerous chemical affinity of hornets and some humans is familiar to the natives of the vicinity. At an informal meeting in the usual little crossroads country store, where the light is dim and canned goods are sold side by side with the oil lamps, a man told of his experience. He appeared about 40 years of age, smoked a pipe that simmered between puffs, with an imperturbable mien that would remain undisturbed whether he tracked a bear up the mountainside or watched daybreak from a deer stand. As a member of a party destroying hornets' nests in a recreational area, he was stung above the right eye. In the afternoon of the same day, while his companions sprinkled gasoline in and around the entrance to a large nest, he cautiously stood some distance away for fear of being stung again. Only one man in the group was stung. And you guessed it—the same cautious gentleman, but this time above the left eye. As in this case, occasionally a hornet stings while flying and, backed by a speed of more than 13 miles per hour, the force of impact could put you right back on the seat of your pants.

In all fairness to hornets, if undisturbed they will leave you alone. Their temperament, which may appear malevolent, is primarily directed toward the protection of their nest. They are not unfriendly, only exclusive. "Forget 'em," said a mountaineer who had wandered fields and woods for seventy years, "and they won't hurt you." He had never been stung, but others with him, of possibly a different blood factor, had been stung repeatedly. And a youngster, while cutting our summer grass, was stung whenever he passed near an open-end pipe clothes-line support in which there was a small wasp nest. Of course, he could have bumped the vertical post but as the lawn mower was his father's he was much too careful for that. No other child was stung. So draw your own conclusions, but blame no one but yourself for poor judgment. Hornets actually do selective stinging.

Incidentally, the paper hornets are biologically super wasps who build large tree nests that are paragons in architecture and have all the characteristics of future space stations. These insects are themselves the planes that transport food and building material. Their radar is an excellent memory of air runway markers and unexcelled though limited vision.

The anatomy of these super wasps has considerable influence in the location of their nest. In the adult hornet the connection between the thorax and abdomen is, for all practical purposes, only a small thread-like tube called the petiole through which only liquids can pass—certainly no solids. And yet the larvae of the species develop on solids, such as chewed-up caterpillars and flies. Also, the source of building material for the elaborate, paper-like nest is of paramount consideration. In case of hot, dry summer days, water must be available. So, all in all, the selection of a site for a community nest is based on practical judgment from centuries of experience.

Consequently, our search for a nest follows a stream or pond and near the edges of fields. The cellulose used in building the paper nest, obtained from old wood and in large amount from leaves and the woody parts of plants, is available among the trees. Protein-yielding insects used as food for the young are available in adjacent pastures. Nectar, on which adult hornets live, obtained from flowers, fruit juices, blossoms, flowering weeds and juices of certain plants, even honeydew from other insects, is found in fields nearby. The hornet is a wasp with a "sweet tooth."

Another wasp behavior helpful in locating their nest is the fact that they use an unobstructed view or flight passageway of 30 feet or more for getting to and from the nest. Flying is controlled by sight, even though location of food is by smell. Nest material is also selected by sight. Consequently, many hornet queens select home sites along and overlooking country highways. These are easily seen if you know what you are looking for. The same theory applies to those nests overhanging the small rivers in the vicinity. A further aid in locating these aerial nests is the psychological characteristics of the hornets. They are not only social wasps because of their home life but in the fact that they like to live near people. Also, their relative behavior one to another, at least of the same species, is friendly enough to influence them to build as many as three nests within a several-hundred-foot radius circle. This chummy attitude is, of course, affected by available supplies of food, water and building material. Such knowledge is something the hornets' nests collector must have, and use.

The fact that paper hornets build their community nests for a single summer occupancy only is knowledge necessary

 (Continued from page 21)

collection. It is no fun at all to be caught up a tree by five hornets defending their home. And this protective attitude continues from May to September. These insects develop from eggs to maturity in two or three weeks, and have a life span of from one to five months. So, the varying population of a single nest often runs into thousands for the season, and during this period you should leave them strictly alone. But in late summer the hornet population loses interest in life and begins to die off. By early frost there are only queens surviving, searching for protected places suitable for winter hibernation. The nests are deserted by November, still in good shape and undamaged by winter winds. Normally located at the end of slender branches, they are whipped back and forth until the lower part of the housing breaks away and the brood combs are torn loose to be scattered by the wind. Thus, November and December are the best months for collecting these nests. They are easily seen and still intact. Rarely is a nest built next to the trunk of a tree. Although protected from the wind and almost invisible, with steady landing for flying hornets, it still is much more easily reached by predators—insects, birds or mammals.

Exterior shape and design of nests is shown above. Small nest on the left is tilted to show full view of entrance port which is at the bottom of the structure as it hangs naturally.

Cold weather is not entirely the contributing factor in the death of hornets in late summer. Nature has established a life span for these insects beyond which they do not live. The thousands flying around in mid-summer disappear, leaving no trace excepting for a few bodies of adults and pupae remaining in the nest. To illustrate more fully nature's influence on their life and death—a small colony of wasps built a nest near the Waynesboro Library. Individual wasps would fly into the building above the book racks. The room temperature was maintained at a uniform 70°. Yet, in early fall the librarians would hear a thump on top of the metal cases, or on the room floor, and an investigation would find that another wasp had died. It would seem that cold weather does not necessarily kill a hornet, but that they die on a schedule set by nature.

In November and December the collector of paper hornets' nests finds conditions most suitable. Leaves have disappeared from the trees and bushes in which they are found. Such trees are selected by the queen hornet for reason known only to herself, in the queenly manner of females. The variety of trees, including shrubs, is extensive. The oak, wild cherry, maple, pine and tulip poplar have nests suspended 60 feet above the ground, swaying perilously on a tiny branch. The lilac bushes, dogwood, apple, holly and hedgerow cedars have large nests substantially anchored to rigid twigs only yards above the ground. In all locations the hornets seem not only to exist but thrive. But, why not? With their temperament they are not often molested.

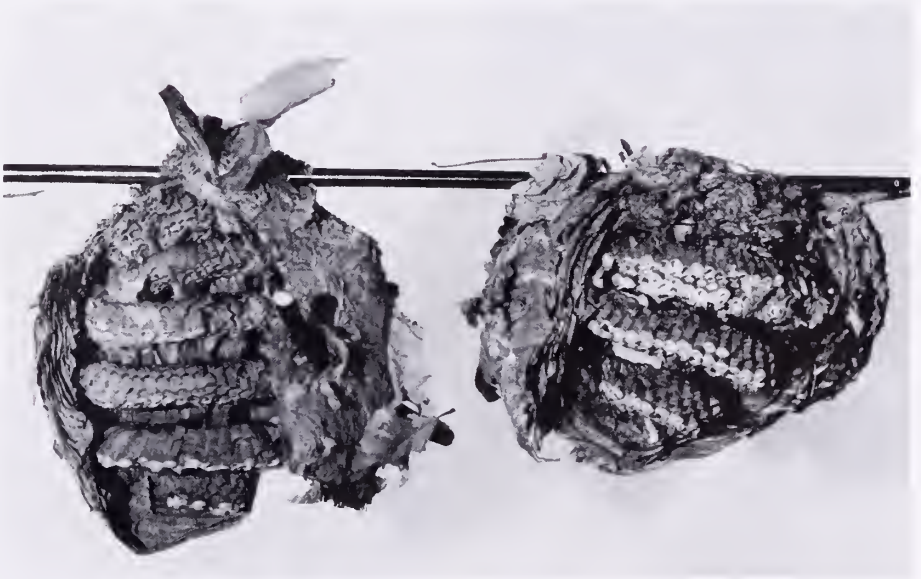
Now, the actual cutting down of the nest becomes the problem. This is only a matter of having proper equipment and knowing how to use it. An aluminum stepladder and extension ladder are necessities for getting into trees, after a pathway has been cut through the underbrush to them with a brush-hook or machete. Once in the tree, pruning pliers, or an extension pruner, or a small saw comes into use. Often a small-size cloth line with a weight attached for throwing over the tree limbs to pull them within reach is used. To be capable of climbing trees, both up and down, is important. So, if your age is over seventy, get a young assistant to accompany you.

A case history of the aerial nest you have collected reveals details dating back to the Garden of Eden and probably the first apple tree. The hornet nest builders, as originally directed by the queen, mix cellulose and saliva thoroughly chewed up as they fly back to the building site. The first hemisphere and small egg cell comb was made by the queen for her own use. But after her workers were hatched, she gave them the job of enlarging the nest while she concentrated on increasing egg production. These workers, on enlarging the nest, cut out inside plys of the paper insulation in the house to add sheets to the outside. As work progresses the shape of the nest evolves into that of an enlarged country egg 12″ in diameter by 15″ high, of spheroid design.

Coming out of hibernation the queen soon locates two or three forking twigs in a suitable tree and ties them together with a sheet of rigid gray paper-like pulp (a woody fiber worked into a paste with the viscid secretion of her salivary glands). From the edge of this sheet she builds the wall of the nest housing down and outward. The design is stereotyped in construction by Paper Hornets, Inc., as a group. Inside this hemisphere is erected a small flat horizontal paper comb of regular hexagonal brood or egg cells. In this first comb built by the queen, the cells are smaller than those made by her workers later in the season. This is because she, being alone, is swamped with work and must limit her efforts. This first comb, as with subsequent ones, has brood cells built upside down, with openings at the

bottom. They are suspended on center, from the one above, by a central hanger which is increased in size when more loads are added. As combs are enlarged by additions around the edges, they are braced to the ones above with 3 or 4 small struts at regular intervals for stability and with ties into the outside housing to prevent swaying. All hangers are star shaped for rigidity and made of the conventional and uniform gray paper material.

As hornets are wasps, the building operation for polistes wasps' nests in a farm shelter will make the description of paper hornets' aerial nest construction more readily understood. In this instance the queen smears a small area under the barn eaves with a sticky pulpy substance. From the center of this area she attaches a ½" long suspension rope, or hanger, the lower end of which is smeared with the same sticky substance. To the hanger she attaches a small horizontal brood comb. As additional egg cells are needed, they are added around the edge of the comb. The supporting pedicel rope is proportionately increased in size as the suspended load increases and occasionally is found to be as much as one inch in diameter. In the completed nest there is only one horizontal comb with no surrounding



Cross sections of nests show details of brood combs, heavy mats at tops of nests, and seven-ply paper sheeting insulation inside lower walls.

housing of any sort. As in hornets' nests there is no food storage space. For, throughout their short lives, these insects daily forage for food and supplies they need, and when the food supply disappears, their life span has also ended.

The shape and dimensions of paper hornets' aerial nests follow a traditional pattern. The design dates back well beyond antiquity. An analytical test on the thermal-insulating, waterproofing and fire-resistant qualities of their building material relevant to design proves the genius of Nature. The strength of material used in construction of a hornet's nest is both tensile and compressive. From the initial attachment to the slim, swaying tips of tree branches; through the suspension and cantilever design of the horizontal brooding combs; to the entrance portal that carries the strain of thousands of landing, clinging and entering hornets, the stress factors are numerous. Outside housing walls have a flexible panel design with enough rigidity to resist the elements of weather such as wind, rain, heat and cold. A field test has shown that with the nest of a barn wasp the pedicel rope supporting a comb weighing 4 ounces will sustain a load of 7 pounds—which is quite a margin of safety. Even the analysis of the outside wall of a hornet's nest shows that the thermal insulating factor is about as effective as a 16-inch brick wall. This outside wall has about 7 ply of paper construction with air spaces between—which makes a fairly uniform atmospheric condition within the home.

In nest design the ventilation is primitive. At the bottom, protected from rain and weather, is the entrance portal. At the top occasionally is detected two or more well covered air vents. Thus, circulation of air is provided for, especially when the dwellers beat their wings fan-like, to stir up the air within the nest. If the inside atmosphere is still too hot for comfort, the hornets bring mouthfuls of water from adjacent ponds, which, when dumped on the outside of the nest, cools it through evaporation. Thousands of hornets can carry considerable water. On very hot days, when all else fails, the hornets temporarily abandon the nest, flying around and around until the heat from the sun has begun to cool. They then re-enter the nest to see how the young hornets and larvae have fared during the hot period. During these periods of restlessness the smart man stays away from the vicinity.

And, yet, hornets, while called stingers, are social wasps. The aerial home of these paper hornets is not built as a fortress but actually is a nursery to propagate the species. So Nature, most appropriately, has left the design and construction to the queen, a mother of many talents, who knows the ropes on hornet child psychology. This stereotyped nursery nest is a traditional procedure that dates back well beyond antiquity with, according to the archaeologist, very few, if any, changes. The nests of paper hornets are not always aerial. Hollow snags of Normandy and tulip poplar trees are often used as housing by the big black and white bald-faced and even the large brown beautifully marked, but mean looking, hornets of the same general species. Yet, actually these vicious insects act friendly enough to the neighborhood boys and girls. In back-yard gardens around Petersburg, and in Chesterfield and Augusta Counties, where nests are found within reach of little children, seldom, if ever, are any of them harmed. But grown folks have a habit of "stirring up a hornet's nest" even among themselves. So it behooves man to be cautious or he is likely, one way or another, to get stung.

For considerable information in this article, reference was made to library books by Howard E. Evans, U.S. Dept. of Agriculture, Gaul, Ralph B. Swain, Edwin W. Teale, Ross E. Hutchins, Peter Farb, Funk & Wagnalls, *Life* Magazine, and others.

Edited by HARRY GILLAM

Cyclops Carp

This 20 pound carp, taken with bow and arrow by Ted Grefe of Springfield, had only one eye. The fact that there was no sign of an eye socket on the other side of the head would indicate that this was an oddity of development rather than the result of any injury.

Virginia Trappers Association to Meet

The Virginia Trappers Association will hold its annual meeting at Bedford County Park Sunday, September 8. The 9 a.m. to 4 p.m. schedule will include an antique trap display, a skinning and fleshing demonstration, and a fox trapping demonstration. A snack bar on the grounds will provide refreshments. The park is located between Bedford and Big Island on State route 122. Membership in the group includes both professional and amateur trappers.

Lucky Lady

Mrs. Margaret L. Schaeffer of Nokesville caught this 7 pound 2 ounce largemouth near Haymarket.

Wardens Shoot for Score at Holiday Lake Training Session

The Thomas Jefferson District, led by high-scoring wardens R. O. Young of Culpeper and R. E. Wilfong of Harrisonburg, beat out other game warden districts with a score of 1657 during team competition with the 38 caliber 4 inch barrel regulation revolver at a recent Game Commission training school at Holiday Lake. Young and Wilfong each turned in scores of 324 out of a possible 400 points. In subsequent individual competition between the top shooters, R. W. Marshall of Wise topped other participants with a score of 328.

In addition to the pistol marksmanship instruction the group had numerous workshop sessions on game and fish management techniques while at the Holiday Lake facility.

Safety Instructor Group Trained

This group of 20 hunter safety instructors recently completed training in Richmond under the tutorship of Commission Safety Officer J. N. Kerrick and J. W. Courtney, Jr., of West Point. Such instructor courses are sponsored frequently in various parts of the state to develop a nucleus of trained N.R.A. instructors to work with Virginia's youth.

Ruffed Grouse Society to Meet

The Ruffed Grouse Society of America, mentioned in the May issue of *Virginia Wildlife*, will hold its annual meeting August 23-25 in Pennsylvania. The meeting site is Allenberry, a resort hotel located at Boiling Springs not far from Harrisburg. Reservations may be made by writing to Allenberry Inn, Boiling Springs, Pa. 17007.

Game Biologist and Area Supervisor Honored

District Game Biologist John B. Redd, Jr. (left), and Powhatan Wildlife Management Area Supervisor Stanley H. Patterson (right), were commended by the Richmond Area Boy Scout Council in a brief surprise ceremony during the Commission of Game and Inland Fisheries meeting on June 21. Each received a certificate of appreciation for outstanding cooperation and support of the Boy Scouts, some 700 of whom had spent a weekend "roughing it" on the Commission's Powhatan Area. Douglas Cruickshanks representing the Council, and Robert A. Chappelle, in center above, representing the Scouts, made the presentations.

New Lakes Book Available

A new Public Fishing Lakes book is now available free from the Game Commission giving details on the 16 fishing lakes owned by the Game Commission around the state. It consists mainly of reprints of the series on state lakes which has been carried in *Virginia Wildlife* over the past several months. Also included is a state location map and a table summarizing fish species and facilities at each lake.

Edited by ANN PILCHER

Topnotch Riflemen

Competing against other students throughout the state, these high-scoring shooters have been named by the Virginia State Rifle and Revolver Association to the 1968 Virginia All State Rifle Teams:

Collegiate

William James McKelvey (Belleville, Ill.)—V. M. I.
Richard Carlton Hawthorne, Jr. (Charlottesville)—U. of Va.
Thomas Douglas Atwood (Arlington)—U. of Va.
Francis A. Drake (Arlington)—V. M. I.
Arthur John Bowler, Jr. (Richmond)—U. of Richmond

Scholastic

Robert Alan Strong (Alexandria)—Fort Hunt H. S.
Diana Lynn Timberlake (Alexandria) Fort Hunt H. S.
Ray P. Carter (Alexandria)—Fort Hunt H. S.
Mary Margaret Keys (Springfield)—St. Mary's Academy
Frank Allen Klopfenstein (McLean)—Langley H. S.

Head, Heart, Hands and Health

Planting food patches for wildlife; building and erecting bird houses and feeding stations; participating in hunter safety classes—these are a few of the ways Virginia's 100,000 4-H'ers (70,000 in organized clubs; 30,000 in special interest and TV study groups) contribute toward the state's over-all wildlife, conservation and nature study program. 4-H is one of the largest volunteer youth development programs in the world (4,096,269 members in 76 foreign countries; more than 2¼ million in the U. S.) and is administered by the Cooperative Extension Service, with Virginia headquarters at Virginia Polytechnic Institute, Blacksburg.

Extension agents in each county provide the professional guidance for 9 to 19 year olds to develop leadership skills, explore career opportunities, learn to appreciate nature and the need for resources conservation, and to visualize how scientific agriculture and home economics relate to our economy.

Club programs are often supported by business, industry, civic organizations, schools, and farmers who believe in the worth of the 4-H program; various government agencies give great assistance; but parents who serve as leaders are the key to its success. Appreciation of family life, of the need for tolerance in working with others, heightened enjoyment of purposeful recreation and leisure, strong personal standards—these qualities and attitudes fostered through the 4-H program are helping to develop responsible citizens and well rounded community leaders.

Prepared through the courtesy of Extension Agent DAN W. MOODY, who directs Caroline County's 898-member 4-H program.

Game Commission Field Services Coordinator Darrell Ferrell shows beaver pelt to 4-H'ers at Jamestown Camp during nature study and conservation program.

Rodeo

The Christiansburg-Montgomery County Chapter of The Izaak Walton League of America held its Annual Children's Fishing Rodeo May 19 at the Club Park east of Christiansburg. A total of 185 anglers, 12 years and younger, registered. This year only 72 fish—rainbow trout grown in the park—were brought to the judges' stand. Although average length was 15½ inches, an inch more than last year, the prize-winning fish were much smaller than usual.

All children registered were treated to hot dogs, served by IWLA and Ladies Auxiliary members. Free drinks were efficiently dispensed by the Dr. Pepper man from his mobile fountain. The ever alert and well equipped Christiansburg Rescue Squad stood by but was not called on.

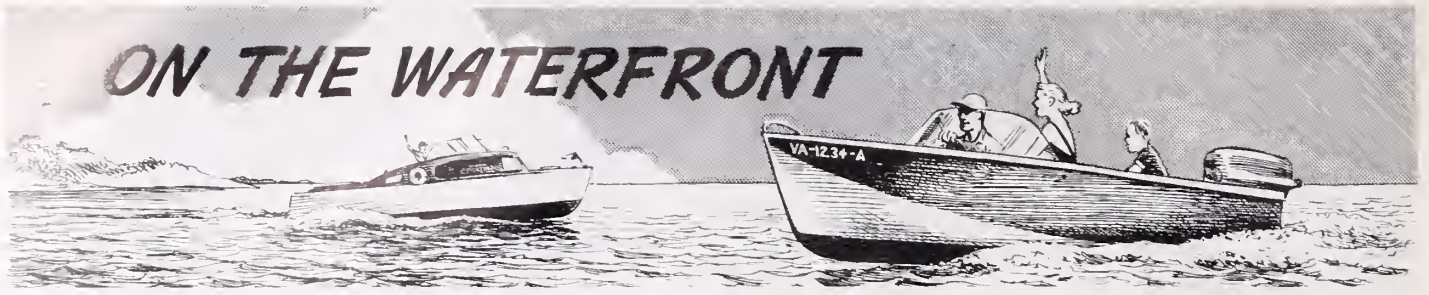
Miss Susan Graham, Christiansburg, first to catch her limit, was awarded a year's subscription to *Virginia Wildlife*. Grand prize trophy for a 19" rainbow went to Clifton Walters, of Blacksburg. Other winners were Deborah Hollbrook, Salem; Eddie Campbell, Radford; Kim Comer, Jimmy Thompson, and Robert Walters, Christiansburg; Ronnie Joe Hawkins and Eugene Duncan, addresses unknown.

Remember Chris Elliott of Blacksburg who last year had caught his limit three years running and still fished in the up-to-6 age group? Chris, at 7, still swings a mean rod and throws a sassy hook. It's said he "drug a carp out of the lake that was so big the water level went down 5 inches . . . used a telephone pole for a rod and a hayfork tine for a hook. . . . But you know how fishermen are. You oughta seen thuh one that gottaway."

—*B. K. King*, Christiansburg-Montgomery IWLA

Nice Catch

Young James E. Gammon of Route 1, Hanover, was so eager to fish in a Hanover pond that someone fashioned him a reed pole, tied a string on it, and he "went to work" April 15. No one paid much attention a little later when he called, "I've got a big one," but they sat up and "took notice" when he finally displayed his crappie catch. This 17¾ inch 2 lb. 4 oz. beauty was 4 ounces shy of citation size but Jim received a Virginia Freshwater Fish Citation anyway, in recognition of such an outstanding achievement by such a small boy.



Edited by JIM KERRICK

Imagination, Common Sense Keeps Kids Amused Afloat

Boating is a true family sport. To insure good times for the younger set, some thought must be given to keeping their interest piqued. The trick here is to get them involved.

For example, you can assign duties like maintaining a list of stores, keeping a log book, or reading instruments and recording data.

Make a game of reading buoys, finding landmarks, taking a bearing.

Break the monotony of lengthy runs by taking a trip ashore for a cookout or a swim from the beach.

Keep simple fishing tackle aboard: medium-weight spinning rod or a short, stiff boat rod for bottom species.

Play useful games related to marine savvy. Test the kids on the recognition and identification of different types of boats, sail and power. Don't forget the fine points of hulls: deep-vee and gull-wing.

Docking and shoving off are always tests of skill. Assign duties to these operations in keeping with the kids' capacities. Introduce the youngsters to skin diving, water skiing, and shell collecting.

Seasonal boat maintenance is a necessary part of boating. In limited doses, painting, polishing, and lubricating chores can be delegated with good effect.

There's nothing dull about boating unless you make it so. If children are to be happy aboard, keep them constructively occupied. This is really not difficult if you mix common sense with a little imagination.

Knowing Rules of the Road Makes for Better Boating

Today, our waterways are much like roads. In boating travel, too, we must obey traffic rules for the safety of ourselves and others. Beyond the prescribed rules laid down, we must exercise courtesy and judgment at all times when operating boats.

Here are a few basic rules for better boating.

1. In head-on meetings, both boats steer to starboard (the right) so that each passes the other to the port (left) side.

2. When overtaking, the faster boat must keep clear of the boat being overtaken.

3. A motorboat burdened with another boat in its danger zone (from dead ahead to two points abaft of the starboard beam) must give way by altering course, slowing, or stopping if necessary.

4. Boats under sail have the right of way over powerboats, except if they should be overtaking.

Buoys are the road signs of the waterways. When a boat enters a channel from open water, the buoys on its port side (left) are black with odd numbers. Buoys on the right are red with even numbers. Steer a course between them, keeping to the right. Mid-channel buoys are vertical stripe marked. Buoys marking obstructions are horizontally red and black striped with the top band indicating the best channel side.

Boat Hook Very Useful Equipment

One of the most often neglected pieces of gear aboard a boat is a boat hook. The boat hook is not required equipment, but it has a great many uses.

The most obvious use is in fending off when leaving or approaching a pier, or in helping to pick up a mooring. They can also be used to hold the boat fast to the pier for short periods of time when one remains aboard. They are invaluable in retrieving articles lost overboard.

Trailer Boating Adds Dimension to Life Afloat

Boat trailering is fun. It enables you to explore and find adventure you couldn't otherwise. Certainly, it facilitates boat camping.

Today, boat trailer design is better than ever. Trailered boats ride safer, more secure, and are child's play to handle.

Generally, built-in quality is found in most of today's name-brand trailers. However, they do require care from their owners.

After long trips or immersion of the trailer in water, its bearings should be lubricated. This must be done routinely if the trailer is used in salt water.

Before starting out, give heed to tightness of all bolts. Check tire pressure. Underinflation is worse than overinflation. Check for adequate slack in your safety chain. Inspect the tie-downs to see that they are absolutely secure.

To prevent damage to your boat, see that rollers, bolsters, and other areas of contact conform to the shape of your boat's bottom.

Test the electrical system to be sure brake and signal lights work. Test to see that electrical brakes respond. Replace broken reflectors.

In the instructions that accompany your trailer, the manufacturer specifies hitch load capacity. If you trail a boat in excess of a trailer's rated capacity, you are begging for trouble. When computing trailer load, remember to include the weight of motor, luggage, and other gear carried on the trailer.

Trailering on the road is a matter of common sense. Allow for more braking time due to the added weight pushing your car from the rear as you brake. On sharp turns you'll have to swing wider for proper clearance.

When launching at a natural site, pick a sloping shoreline to ease the operation. Be sure that your car tires are on terrain firm enough to give you enough traction to pull out with the weight of your trailered boat.

Launching operations should be done unhurriedly, step by step.

In the overall, a trailer is only a small part of one's investment in a boat and in boating accessories. A good trailer used properly is like having an insurance policy on which one doesn't have to pay premiums.

Stop Boat Porpoising

When a boat porpoises it's usually caused by poor trim. Move extra gear forward to add weight to the bow of the boat. If this doesn't correct the situation, check the vertical angle of the lower unit. Move it closer to the transom.

Bird of the Month:

Common Gallinule

By DR. J. J. MURRAY
Lexington

THE book names of birds frequently change, sometimes back and forth. The bird, now known in the books as the common gallinule, was long called the Florida gallinule. The present name, however, goes back still earlier, to the time when the bird was known as the common American gallinule. While the common name has been thus changed, the bird has always had to struggle under the weight of the fearsome scientific name, *Gallinula chloropus cachinnans*. The first part of this name means "little hen"; the second part means "green footed"; while the last part, I believe, means "loud laughing," referring to the strange noises the bird makes.

This marsh bird has been seen all over the state. We have at least three spring records from Lexington and records from all other main areas of Virginia. I have seen one at Mountain Lake. Dr. Ellison A. Smyth shot one in the top of a maple tree on the VPI campus on May 1, 1903. We have summer records from many places, which indicates that the bird might nest almost anywhere in the state. While the books do not permit it to stay as far north as Virginia in winter, it does not obey that restriction. We have winter records from Chincoteague, Norfolk, and Back Bay.

The Florida gallinule is generally slate-gray in color. It has a red bill and a red shield on the lower part of its face, a white band along its sides, and, like the purple gallinule, white under the tail. In size it is 12 inches or more from bill to the tip of tail.

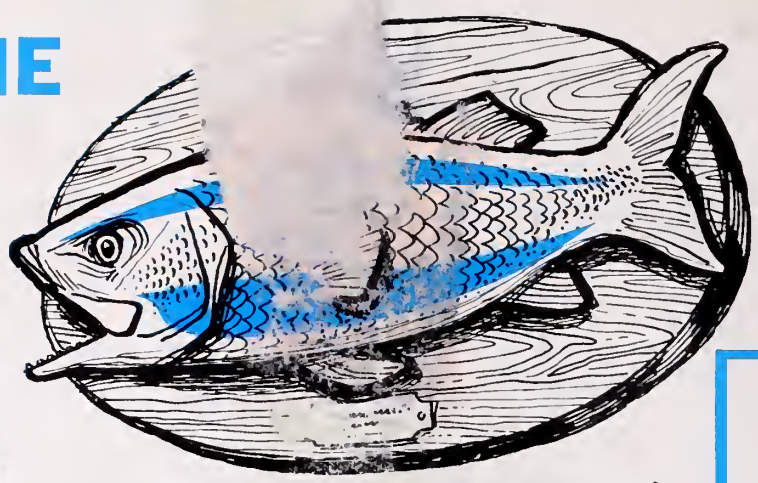
The nest is set on wet ground or built up in the water. Sometimes it is loosely anchored so that it can rise or fall with changes in the water level. Sometimes, according to Harold H. Bailey, it even floats on the water. Nests have been found at Assateague and at Danville in the Bannister Swamp, and young birds have been seen in summer in the Alexandria area. It might be found nesting anywhere in Virginia where there is suitable territory.

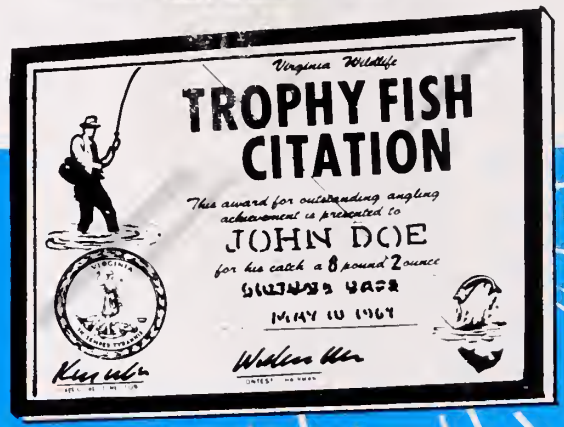
Six to 12 eggs, with a base color of cream, heavily marked with reddish-brown, are laid. Incubation begins with the first egg, so that there may be a week or more variation in the hatching time of the young. The tiny young are black, with orange-colored legs. Many are lost to frogs and snakes.

The common gallinule swims well when there is need, but prefers to skulk through the reeds. It moves its head back and forth when swimming. The flight is awkward, with dangling legs. They are very noisy birds. The common call is a "kik-kik-kik," or a creaking note, somewhat like the note of its relative, the American coot.

This bird is of value to the farmer, since it feeds on seeds and roots of grasses and other water plants, as well as on grasshoppers and other insects.

ALWAYS REMEMB[illegible]
THAT BIG ONE
with a
VIRGINIA WILDLIFE
TROPHY FISH CITATION . . .





CITATION SIZES FOR 1968

Largemouth Bass	8 lbs.
Smallmouth Bass	4 lbs.
Kentucky Bass	3 lbs.
Sunfish	1 lb.
Rock Bass	1 lb.
White Bass	2 lbs.
Crappie	2½ lbs.
Striped Bass	10 lbs.
Pickerel	4 lbs.
Walleye	8 lbs.
Brook or Brown Trout	2 lbs.
Other Trout	5 lbs.
Muskellunge	6 lbs.
Channel Cat	10 lbs.
Flathead Cat	20 lbs.
Carp	20 lbs.
Gar	10 lbs.
Grindle	10 lbs.

RULES:

Fish must be caught in Virginia Waters by legal methods during seasons open for the taking of the species involved.

Fish must be weighed at a public scales that is periodically inspected by the Commonwealth of Virginia.

Photographs are desirable as further proof of authenticity but are not required.

Non-residents as well as residents are eligible for citations if fish are caught under the above conditions.

Applications must be submitted within 60 days of the date of catch to be eligible.

APPLICATION FOR VIRGINIA FRESHWATER FISH CITATION

Angler's Name _____

Address _____

City _____ State _____ Zip _____

Kind of fish _____ Weight ___ lbs. ___ oz.; Length ___ inches

Where caught _____ Date caught _____

Weighed at _____ (store or other public scales)

Weighing witnessed by _____ _____
Signature Address

How caught—Fly Rod ☐ Spinning Rod ☐ Casting Rod ☐

Trot Line ☐ Other _____

COMMISSION OF GAME AND INLAND FISHERIES

P. O. BOX 1642 • RICHMOND, VIRGINIA 23213

HOW TO MEASURE: